

Marked-up Version of Claims

1. (Amended) A nucleic acid molecule comprising:

a first nucleic acid sequence comprising an aptamer covalently linked to a second nucleic acid sequence comprising a biological effector sequence, wherein the binding of said aptamer to a cell surface molecule permits the internalization by said cell of said nucleic acid sequence comprising a biological effector sequence.

2. (Amended) A nucleic acid molecule comprising:

a first nucleic acid sequence comprising an aptamer linked via Watson-Crick base pairing to a second nucleic acid sequence comprising a biological effector sequence, wherein the binding of said aptamer to a cell surface molecule permits the internalization by said cell of said nucleic acid sequence comprising a biological effector sequence.

19. (Amended) A method of introducing a biological effector sequence into a cell comprising contacting the molecule of claim 1 or 2 with a host cell, wherein said aptamer of said molecule of claim 1 or 2 binds to a cell surface molecule of said host cell, and permits the internalization of said biological effector sequence, and whereby said biological effector sequence is internalized by said host cell.

20. (Amended) A method of introducing a biological effector sequence into a cell using the molecule of claim 1 or 2, comprising administering said molecule to an organism comprising said cell, wherein upon binding of the aptamer of said molecule of claim 1 or 2 to a molecule on the surface of said cell, said biological effector sequence is internalized by said cell.

21. (Amended) A [The] method of [claim 20, which] introducing a biological effector sequence into a cell [comprises] comprising administering to an organism the composition of claim 16, wherein the aptamer of said bifunctional molecule of said composition of claim 16 binds to a molecule on the surface of said cell, and permits the internalization of said biological effector sequence, and wherein the biological effector sequence of said bifunctional molecule of said composition of claim 16 is internalized by said cell.

22. (Amended) A method of introducing a biological effector sequence into an organism, comprising:

introducing a biological effector sequence into a host cell by contacting the molecule of claim 1 or 2 with [a] said host cell, wherein the aptamer of said molecule of claim 1 or 2 binds to a molecule on the surface of said host cell, and permits the internalization of said biological effector sequence, and wherein said biological effector sequence of said molecule of claim 1 or 2 is internalized by said host cell; and administering said host cell to [an] the organism.